Health Benefit Design Options

FOR ALBERTA HEALTH & WELLNESS

Aon Consulting

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Executive Summary
7 February, 2006

This document contains advice, proposals, recommendations, analyses or policy options developed for the Minister of Alberta Health and Wellness, and/or department of Alberta Health and Wellness.

Contents

1. Project Scope
2. Conceptual Models
3. Preliminary Comments
4. Non-Emergency Health
5. Prescription Drugs
6. Continuing Care
7. Supplemental Health
8. Economic Implications
9. Final Comments

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Project Scope

- Develop health insurance models for each of the following:
  - Prescription drugs
  - Continuing care
  - Supplemental health products services
  - Non-emergency health care
- Each group of health care services interacts differently with each conceptual model.
- Evaluation criteria based on insurance plan's promotion of:
  - Personal responsibility
  - Efficiency
  - Cost control

Conceptual Models

Conceptual Models Reviewed

1. Mandatory Public Health Insurance
2. Mandatory Public Health Insurance with Optional Private Supplemental Coverage
3. Mandatory Public Health Insurance with Optional Private Replacement Coverage
4. Mandatory Private Health Insurance with Public Premium Pooling
5. Mandatory Private Health Insurance
6. Optional Private Health Insurance

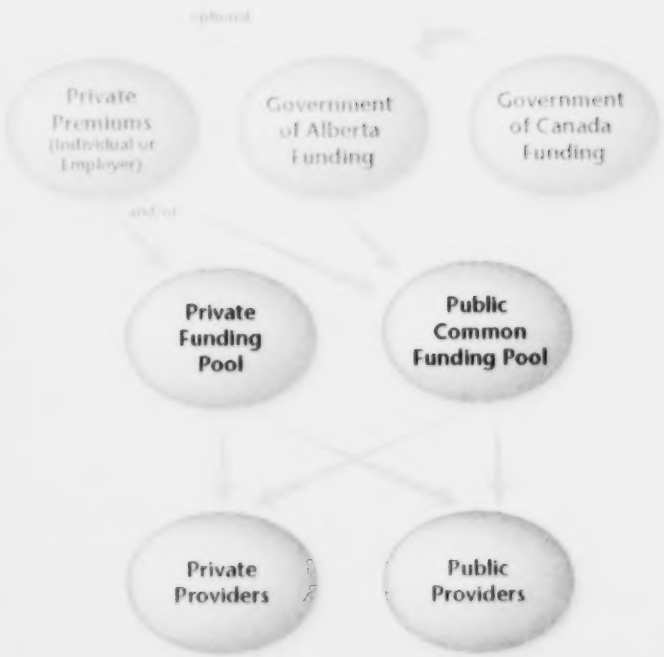
Mandatory Public Health Insurance

- Provide health insurance through a publicly run insurance plan
- Set up plan as any private insurer would, but run by Government of Alberta
- Premiums may be income and/or cost based (i.e. a flat fee)
- Use individual risk ratings to set premiums, or a community rating of the entire population
- Where premiums have a flat fee, the government could make payments on behalf of low income earners

Mandatory Public Health Insurance
Optional Private Supplement Coverage

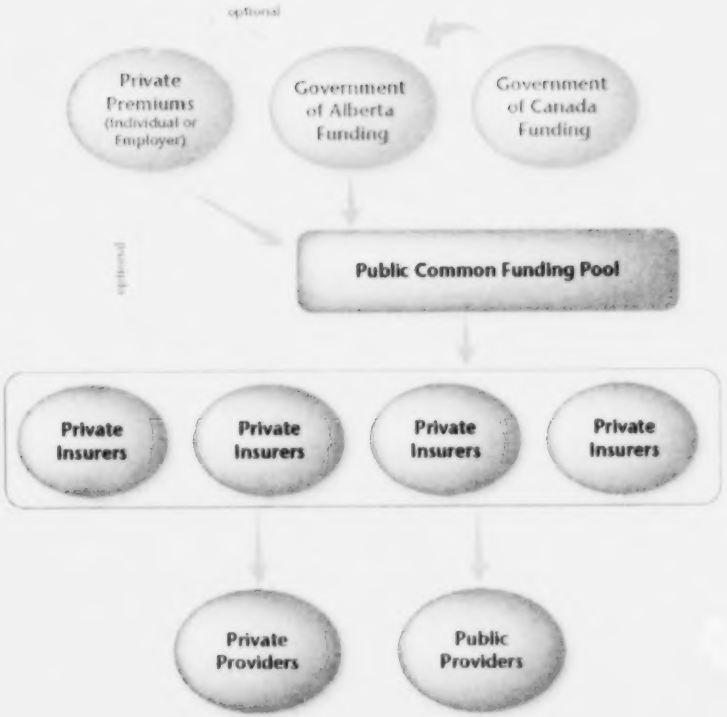
- Choice in health insurance:
  - Mandatory health insurance via publicly run insurance plan
  - Optional private insurance as a supplement to public insurance
- Premiums may be income and/or cost based
- Where premiums have a flat fee, the government could make payments on behalf of low income earners
- Private plans require regulation and oversight for solvency levels
- Private plans may require:
  - Community rating; or
  - More likely, individual premiums based on health risk assessments

Mandatory Public Health Insurance
Optional Replacement Coverage



- Choice in health insurance:
  - Mandatory health insurance via publicly run insurance plan
  - Optional private insurance as a replacement (opt-out) to public insurance
- Premiums may be income and/or cost based
- Where premiums have a flat fee, the government could make payments on behalf of low income earners
- Private plans require regulation and oversight for solvency and coverage levels
- Private plans may require:
  - Community rating; or
  - More likely, individual premiums based on health risk assessments

Mandatory Private Health Insurance
Public Premium Pooling

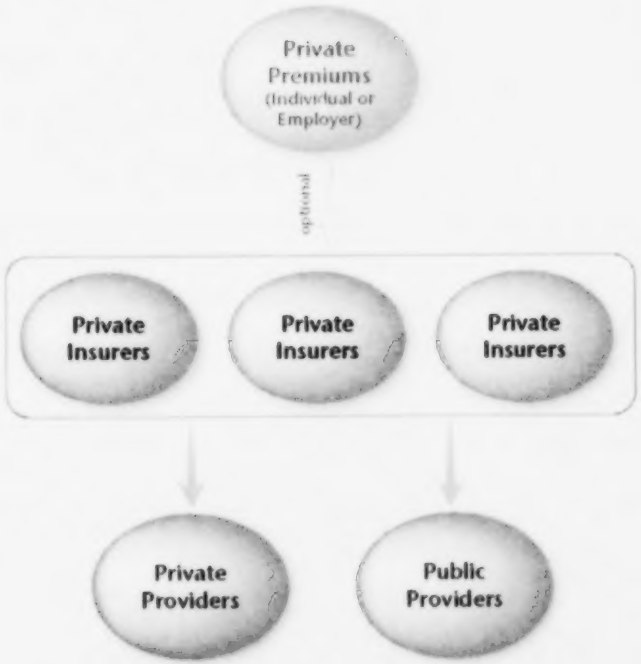


- Universal coverage and funding through common funding pool
- Choice between private insurers may offer multiple plans that meet a minimum standard of coverage
- Insurers paid for basic coverage from common funding pool
- Additional coverage may be purchased to supplement the basic plan with a higher level of health-related services
- Private plans require regulation and oversight for solvency and coverage levels

Mandatory Private Health Insurance

- Mandatory coverage required
- Payments to insurers directly from private parties (individuals or employers)
- Where required for social policy, payments made by government on behalf of individuals
- Private insurers may not be able to provide 'reasonable' rates if liability for future claims is unlimited
- Private insurers may offer multiple plans that meet a minimum standard of coverage, increasing the level of choice
- Risk pooling may be necessary to allow insurers to provide coverage to high risk individuals
- Additional coverage may be purchased to supplement the minimum regulatory requirements with a higher level of health- related services
- Private plans require regulation and oversight for solvency and coverage levels

Optional Private Health Insurance



- Coverage is optional and may be obtained from any private insurer in the market
- Currently this is the type of coverage often provided by employers for drugs and supplemental health care
- Regulation is generally limited to solvency for this model

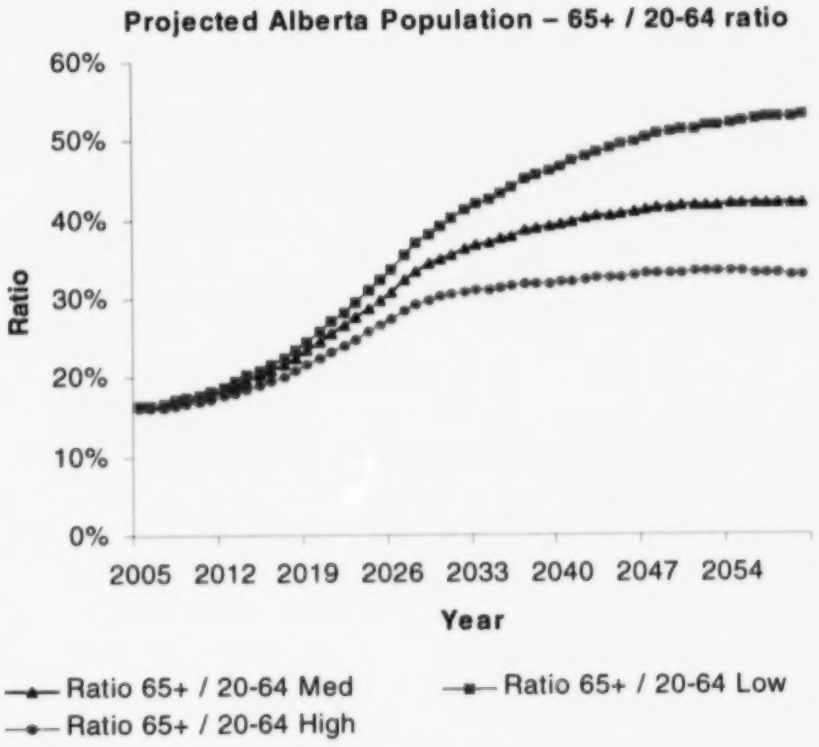
Key Concepts

Aging Population

- Number of workers per retired person will decline substantially by 2050:

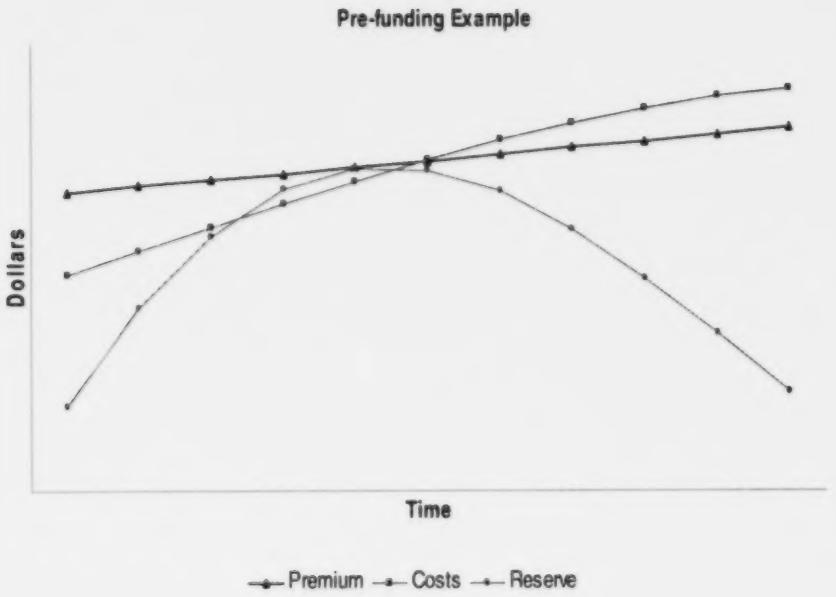
Current	5.2
Low population	1.9
Medium population	2.4
High population	3.3

- Per capita cost of health care increases as the population ages
- Fewer workers reduce provincial revenue growth associated with employment, hence sustainability of health care is threatened if health care costs continue to be paid on a pay-as-you-go-basis



Pre-funding

- Saving or investment strategy that works with an insurance plan to minimize effect of:
  - Rising premiums associated with inflation
  - Increased health service utilization
  - An aging population
- Collect more through premiums than paying out, creating a reserve
- Reserve grows through investment income and additional surplus premiums
- When rising health care costs exceed the premiums collected, use reserve to pay costs, minimizing the effect of rising costs



Projection Length

- Long-term projections are required to assess sustainability as the full effects of an aging population do not occur until after 2040
- Variability in growth rates, particularly health services inflation, has enormous cumulative impact over the projection period
- Projections are linked to common assumptions where possible – ensuring consistent relative ranking of options despite variability in absolute values
- Economic model runs to 2025 – matching the length of the Province's 20 year plan

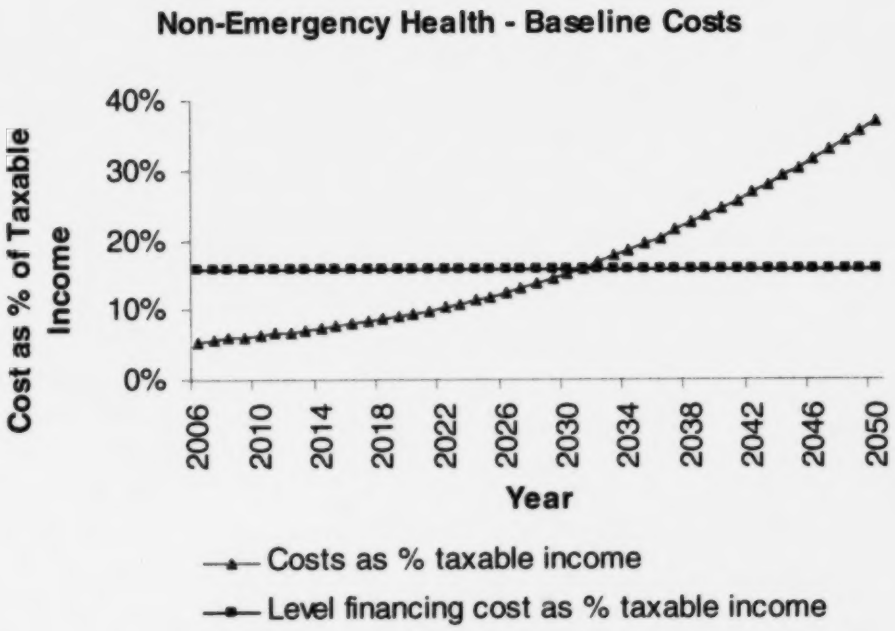
Non-Emergency Health

Non-Emergency Health – Methodology Notes

- All Non-Emergency Health services are funded by Alberta Health and Wellness
- Non-emergency services not a separate category of services
- Protocol created to identify services that would be considered non-emergency for purposes of the analysis
- Used nationally recognized triage score for emergency room visits to differentiate emergency from non-emergency
- Scores of one or two with treatment regarded as emergency; falls outside the scope of the analysis
- All other treatments considered in our analysis of non-emergency services
- Per capita claims rates developed directly from Alberta Health and Wellness data
- Annual projection factors developed from public sources
- After ten years, initial factors were reduced to 6.0% per year under the mandatory public scenario (or actual factor if already less than 6.0%)
- Resulting per capita claims multiplied by projected population in each future year
- Generated projected future annual claims

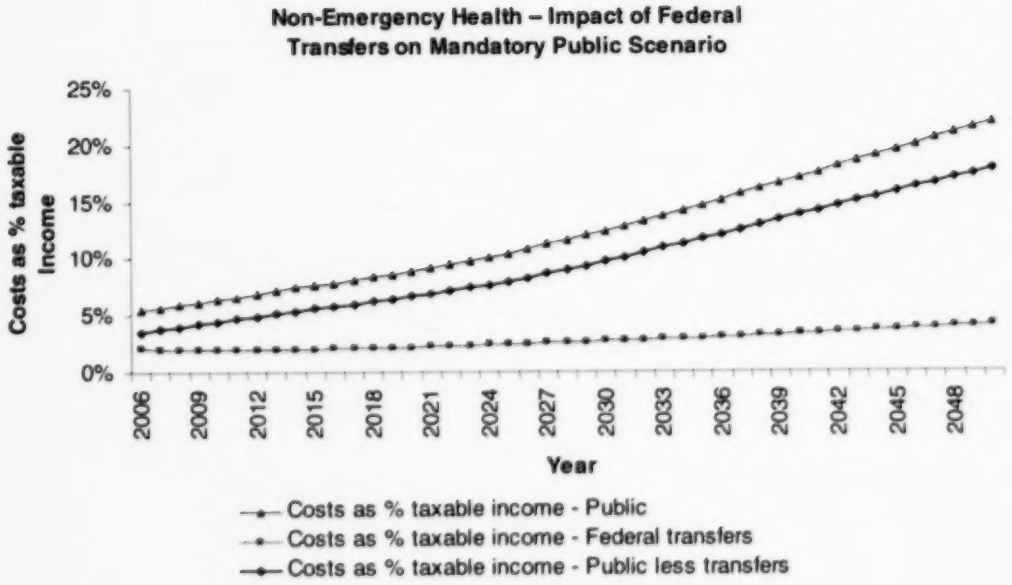
Baseline Cost Projection

- Total projected costs were $5.1 billion in 2006
- By end of projection period:
  - Cost inflation and population growth combined to $245.8 billion
  - As a percent of projected taxable income, claims grew from 5.5% in 2006 to 37% in 2050
- Public mandatory insurance will follow baseline scenario, but with lower projection factors after 2015Because of the assumed 6% cap on cost increases



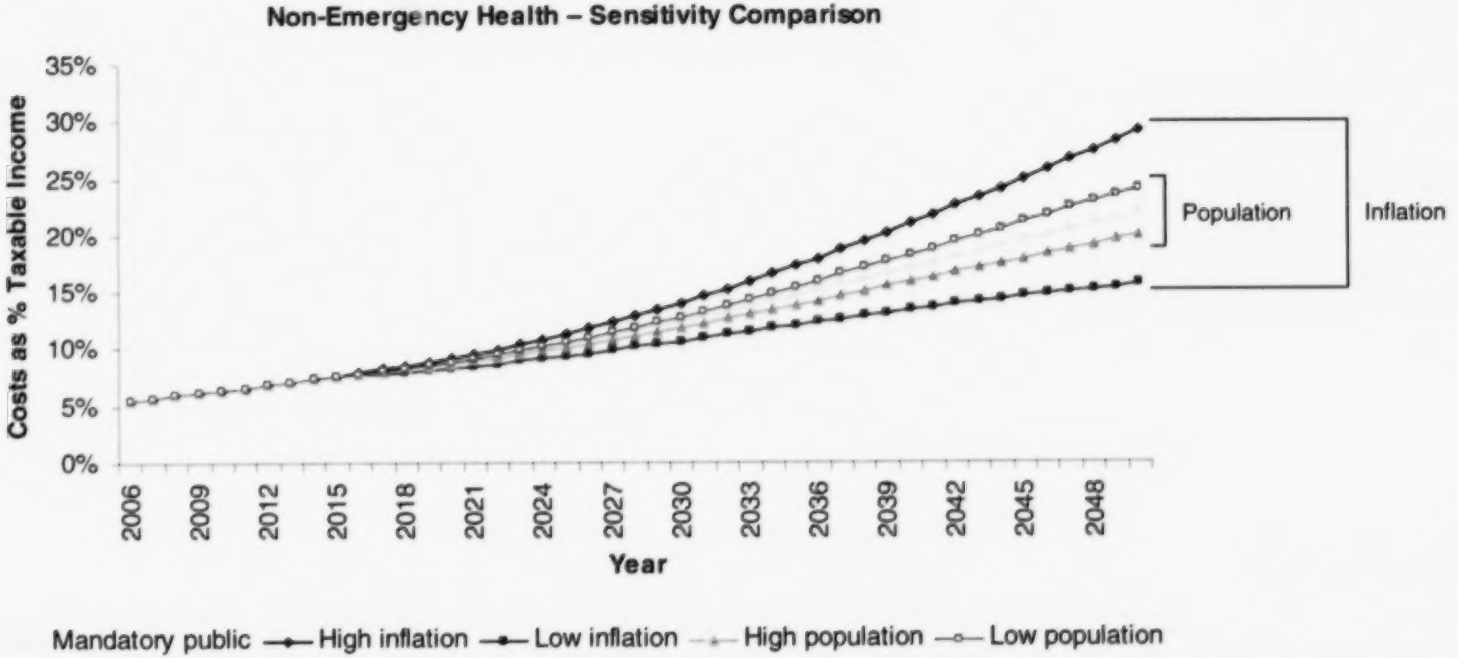
Federal Funding

- Federal transfers a large component of Non-Emergency Health funding
- Assuming the transfers grow at 6% per year, federal transfers will decline as costs grow faster due to
  - population growth,
  - aging and
  - inflation
- Any conceptual model with private insurance for Non-Emergency Health risks diminished federal funding



Sensitivity Testing

- Inflation is the most significant factor impacting projected growth of Non-Emergency Health
- Primary operational factor for ensuring sustainability is controlling cost growth (largely total salaries) through improved productivity



Conceptual Model Comparison

Conceptual Model	Cost Control	Efficiency	Encourage Personal Responsibility	Choice in Coverage
Public Mandatory	Primary factor is competition between health service providers	Limited competitive pressures Centralized administration	Contingent on plan design (premiums and cost sharing)	Limited
Public Mandatory with Private Supplemental Coverage	Primary factor is competition between health service providers Possible misalignment with CHA	Limited competitive pressures Mixed administration	Contingent on plan design (premiums and cost sharing)	Limited for basic Higher for supplemental
Private Mandatory with Public Premium Pooling	Primary factor is competition between health service providers Possible misalignment with CHA	Strong competitive pressures Centralized premium collection Decentralized administration	Contingent on plan design (premiums and cost sharing)	Higher

Non-Emergency Health Insurance Observations

- Privatization of providers and potential improvements in productivity could have a larger long-term impact on cost control than private insurance
- Effect of private insurance is limited without private health care providers (little control over costs and limited opportunity to differentiate)
- Use of cost sharing mechanisms (co-payments and deductibles) reduced costs, but did not offset the potential loss of CHA funding

Prescription Drugs

Prescription Drugs – Methodology Notes

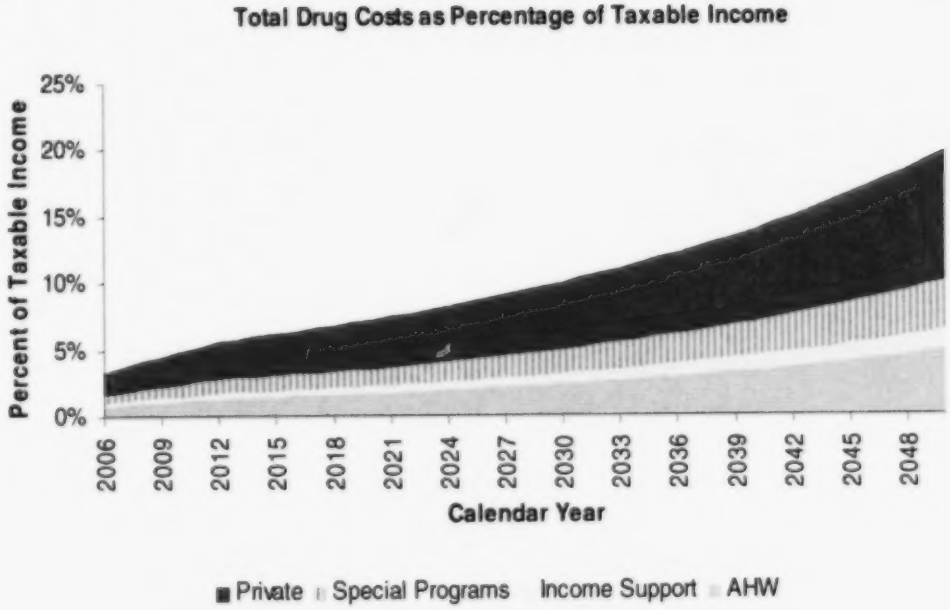
- Funded by Government of Alberta, private insurers and employers and out-of-pocket payments by individuals.

Population Group	Current Cost	Population
For current beneficiaries of • **Alberta Health and Wellness** • **Alberta Human Resources and Employment (AHRE)** • **Seniors and Community Supports**	Claims costs established by therapeutic class, age and gender cell using detailed drug claims paid in Fiscal Year 2004 to 2005	Demographic composition covered by AHRE and Seniors and Community Supports corresponds to population of claimants
Employer Insured	Therapeutic class, age and gender cell costs of a large employer plan used Costs adjusted to balance CIHI data	Total population less those covered by Government of Alberta and those uninsured
Uninsured / Underinsured **(27% of population)**	Cost assumed equal to those of the average population (for the same age and gender)	Demographics derived from the Canadian Community Health Survey (CCHS)

- Inflation rates and utilization trends for each therapeutic class of drugs created taking into account the projected impact of anticipated cost control mechanisms
- Cost projections created by combining drug costs, anticipated utilization and projected population data

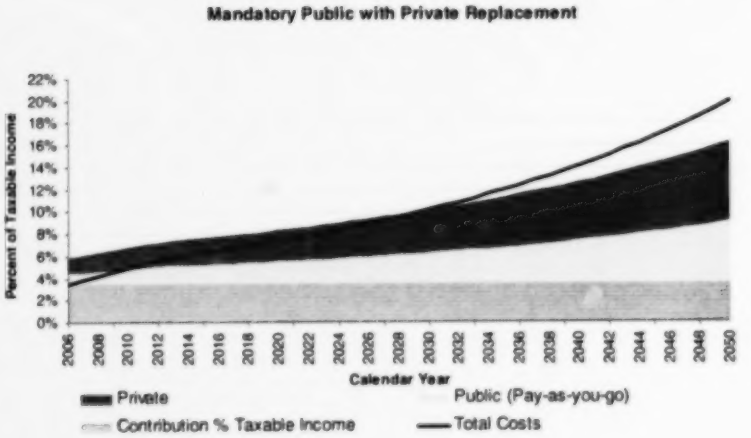
Adjusted Baseline Cost Projection

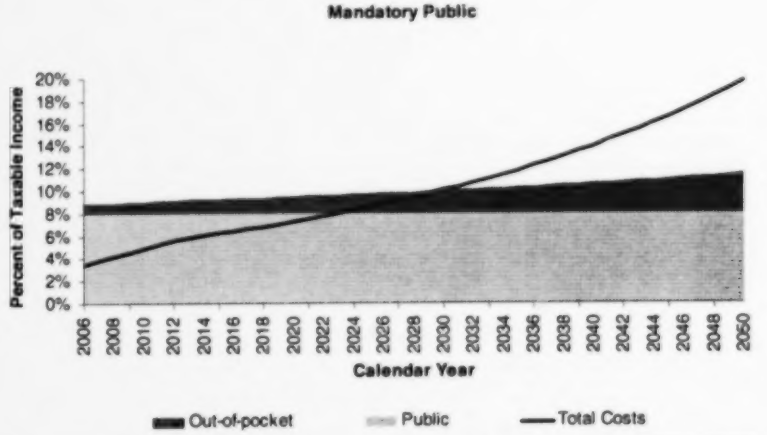
- Adjusted to assume a number of cost control mechanisms
- Otherwise the cost of prescription drugs will exceed total taxable income in 2036
- Public drug programs may be difficult to cost-effectively transfer to private insurers due to potential for large liabilities
- Using reasonable control mechanisms, costs expressed as a percentage of taxable income will more than quadruple by 2050



Mandatory Drug Plans with Pre-Funding

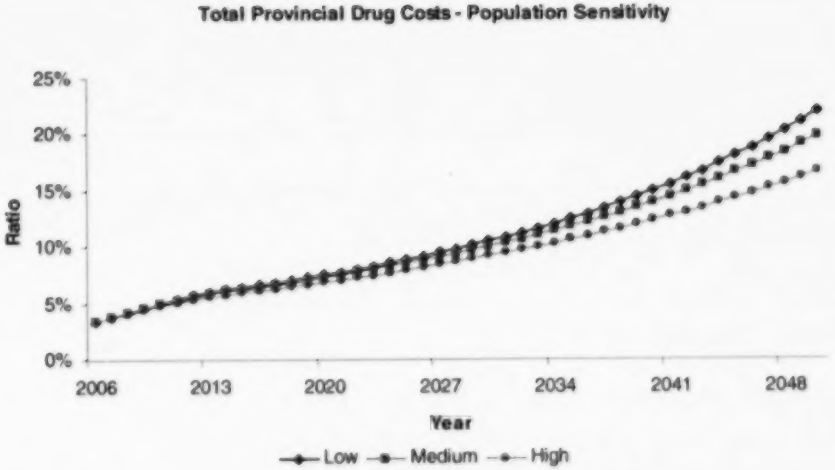
- Mandatory drug plans were selected for modeling to:
  - Ensure entire population has drug coverage
  - Prevent free-rider phenomenon where drug insurance is not taken by some of the population, who rely on private plans and then when they become seriously ill or elderly they rely on public plans.
- Public funding can mix pre-funding and pay-as-you-go
- Higher proportion of pre-funded costs increases the up-front burden, but reduces peak cost (relative to taxable income)
- The mandatory public with private replacement model assumed seniors and special support plans would be payable by entire population



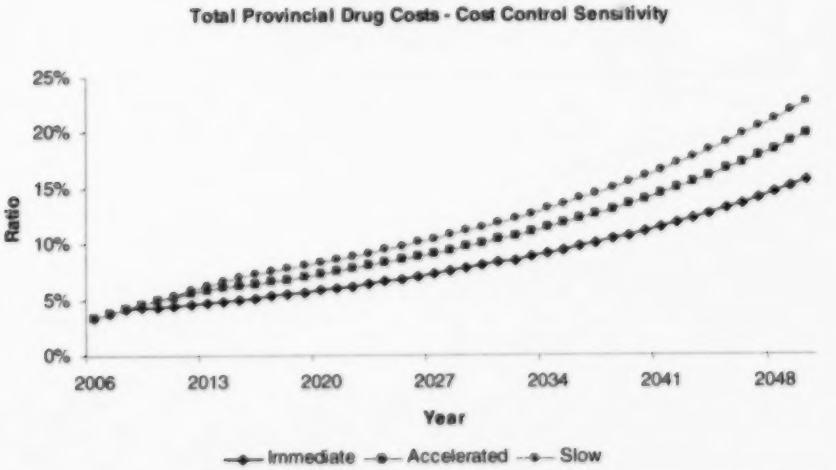


Sensitivity Testing

- Population growth and working proportion of the population has material impact on costs relative to total income, particularly after 2030 when aging effects become increasingly important



- Rapid implementation of cost control mechanisms has dramatic short and long term effect on drug costs



Conceptual Model Comparison

Conceptual Model	Cost Control	Efficiency	Encourage Personal Responsibility	Choice in Coverage
Public Mandatory	Single purchaser with higher buying power	Limited competitive pressures	Contingent on plan design (premiums and cost sharing)	Limited
Public Mandatory with Private Supplemental Coverage	Single public purchaser with higher buying power Private purchasing impacted by public cost control methods	Limited competitive pressures	Contingent on plan design (premiums and cost sharing)	Limited for basic Higher for supplemental
Public Mandatory with Private Replacement Coverage		Strong competitive pressures for private plans (effect limited with global suppliers)	Contingent on plan design (premiums and cost sharing)	Higher
Private Mandatory with Public Premium Pooling	Private purchasing impacted by public cost control methods	Strong competitive pressures (effect limited with global suppliers) Centralized premium collection Decentralized administration	Contingent on plan design (premiums and cost sharing)	Higher

Prescription Drugs Health Insurance Observations

- Mandatory coverage ensures everyone contributes financially for the benefit they receive
- Combination of private and public coverage allows employers to offer higher coverage where desired
- Province-wide cost control mechanisms required to control total costs
- Effect of single purchaser in setting prices is materially important
- Public mandatory insurance with private replacement coverage is similar to the model used in Quebec, and implementation would be relatively straightforward

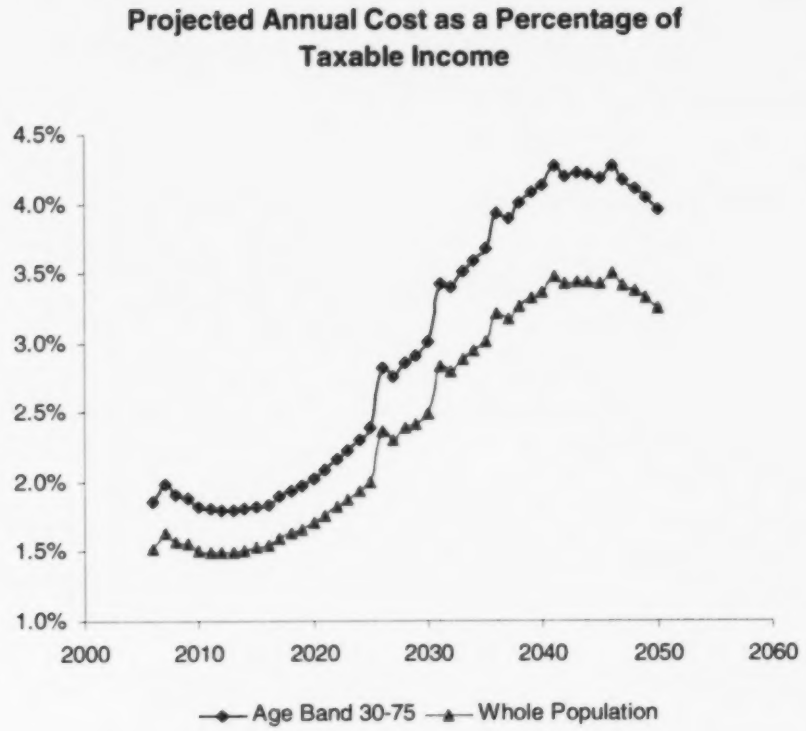
Continuing Care

Continuing Care – Methodology Notes

- Baseline projections based on Scenario 2 of Alberta Health and Wellness Regional Continuing Care Model (RCCM)
  - Assumes a "medium-shift" from facility-based services to community-based services
- RCCM cost projections were revised in the following ways:
  - Alberta Finance's medium population projection revised to reflect anticipated improvements in mortality rates
  - Unit costs inflation increased to 4% to reflect anticipated trends
  - Percentage of total funding allocated for capital expenditures increased to recognize obsolescence
  - Expected costs from implementation of "What We Heard & Draft Recommendations" produced by Task Force on Continuing Care incorporated
- Accommodation and care are decoupled – only the health care portion of this is modeled for insurance
- As an insurance policy, it is assumed that once a certain level of disability exists, requirement to pay premiums stops, irrespective of whether home or facility-based services are rendered. Alternatively, health status could be ignored.

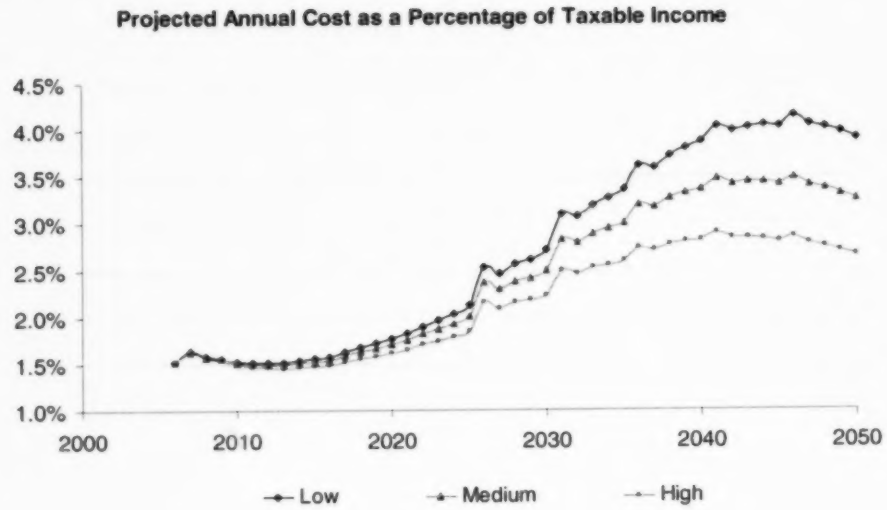
Continuing Care - Premium Base

- Spreading the cost over a portion of, or the entire population, impacts the insurance premium
- A smaller number of premium contributors will have to make a larger payment



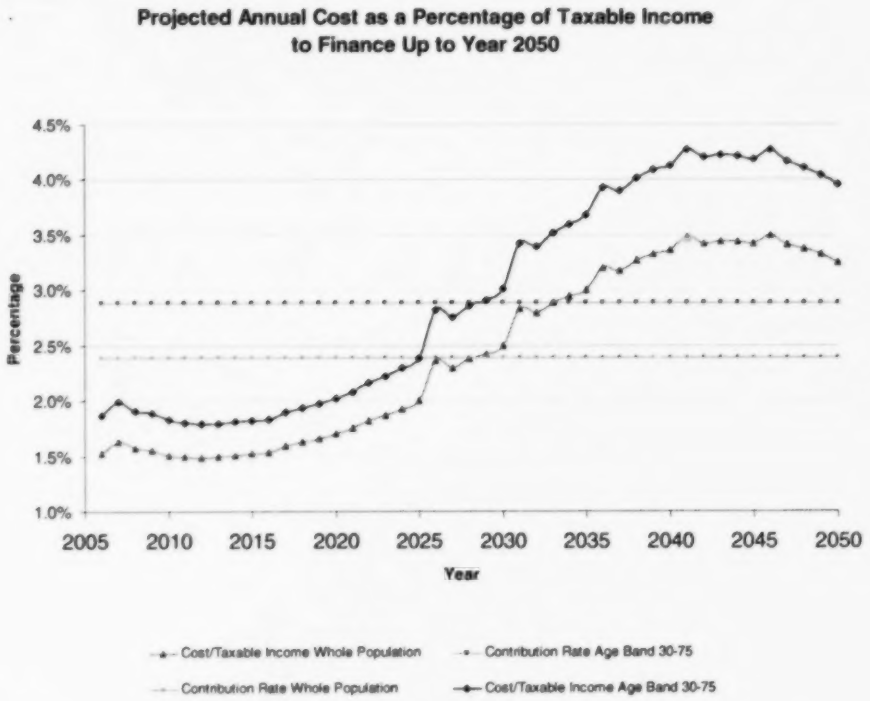
Population Sensitivity

- Aging and workforce's proportion of total population are primary drivers of cost relative taxable income
- Inflation is a material factor where health care salaries rise faster than those of general population



Continuing Care - Cost Impacts

- Total costs are relatively similar with different insurance models
- Private supplemental insurance would increase total costs on a supply and demand basis
- Uptake of existing supplemental products has been very low in Alberta and other markets (as insurers limit benefits to control risk)
- Private costs are more likely to be paid out of pocket as incurred
- Full or partial pre-funding is highly appropriate as cost projection factors have relatively little variance because they are largely salary driven



Conceptual Model Comparison

Conceptual Model	Cost Control	Efficiency	Encourage Personal Responsibility	Choice in Coverage
Public Mandatory	Single purchaser with higher buying power	Limited competitive pressures (depends on private providers of continuing care)	Contingent on plan design (premiums and cost sharing)	Limited
Public Mandatory with Private Supplemental Coverage	Single public purchaser with higher buying power Limited private services with total cost set by market forces	Limited competitive pressures (depends on private providers of continuing care)	Contingent on plan design (premiums and cost sharing)	Limited for public component Private has not had many offerings in other markets
Private Mandatory with Public Premium Pooling	Overall total Private Mandatory costs determined by the public pool funding Costs for enhanced insurance policies are demand/supply driven	Competitive pressures on cost, regulation required to ensure quality Centralized premium collection Decentralized administration	Contingent on plan design (premiums and cost sharing)	Possibly more coverage; dependent on regulatory requirements

Continuing Care Insurance Observations

- Pre-funding is a continuing care savings plan for an aging population:
  - Requires mandatory participation
  - Premiums linked to income limit inflation risk
- Insurance options have less impact on cost than operational improvements
  - Both are smaller than the aging effect

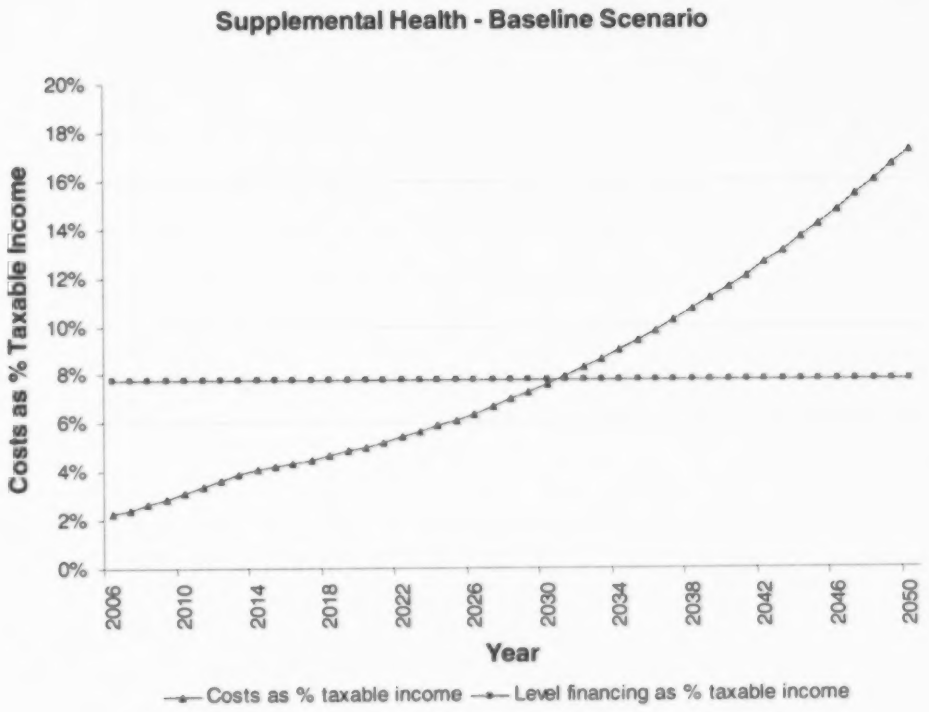
Supplemental Health

Supplemental Health – Preliminary Notes

- Broadly defined as a typical group extended health care policy without prescription drug coverage
- Benefits:
  - Paramedical specialists
  - Hospital accommodation
  - Vision care
  - Miscellaneous medical equipment and supplies
- Benefits are largely privately insured; plans typically incorporate deductibles and co-payments
- Current plans negotiated between insurers and plan sponsors (employer or union)
- Pricing functions on an annual renewable term basis (no pre-funding)

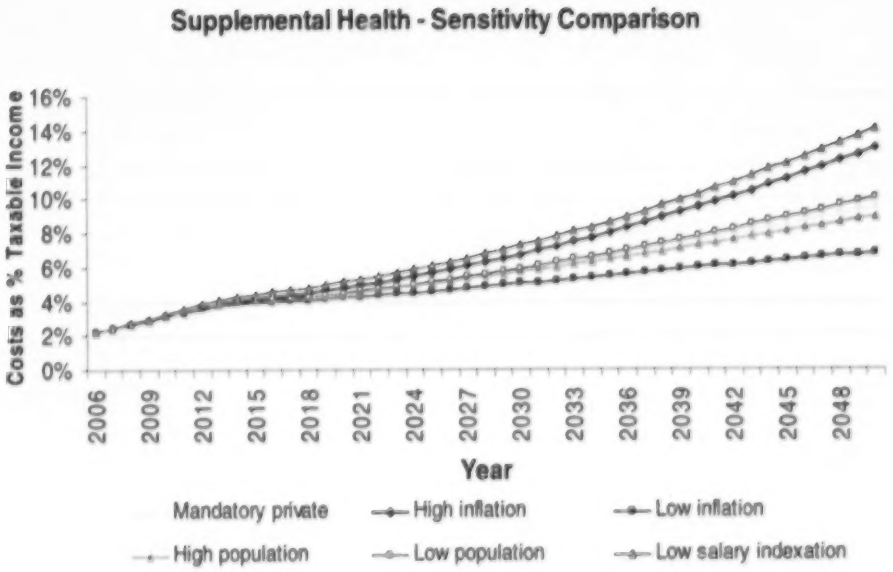
Baseline Cost Projection

- Total projected costs are $2 billion in 2006
- Cost inflation and population growth drive this to $115 billion by 2050
- Per cent of taxable income grows from 2.2% to 17.25%
- Equivalent level funding percentage is 7.76%
- 15% of costs are currently paid through various government programs



Sensitivity Testing

- Economic impacts (low economic growth) and claims costs (high inflation) have greatest impact
- For supplemental health, long-term inflation risks are currently borne by private industry



Conceptual Model Comparison

Conceptual Model	Cost Control	Efficiency	Encourage Personal Responsibility	Choice in Coverage
Private optional	Limited – multiple purchasers with total cost set by market forces	Sold in a very competitive marketplace	Contingent on plan design (premiums and cost sharing)	High, but may be determined by employer
Private Mandatory	Limited private services with total cost set by market forces	Sold in a very competitive marketplace	Contingent on plan design (premiums and cost sharing)	High

Supplemental Health Insurance Observations

- Mandatory coverage ensures coverage for all and that everyone contributes financially for the benefit they receive
- The province may not wish to accept additional costs, given that these benefits are currently privately insured
- Private carriers have no greater incentive to control costs than at present
- Currently, cost risk is borne by private industry
- Mandatory coverage requires government oversight

Economic Model

Economic Model Approach

- System dynamic technique to link three distinct types modules:
  - General economic – based on relationships in Alberta Finance's long-term economic projections
  - Public finance – projecting revenue and costs forward with relationships developed from income statement and stated policy, linkages to general economic performance, and health care projections
  - Health care (public and private) – based on actuarial projections and Statistics Canada data
- Seventy assumptions to adjust where analysis requires
- Validated against:
  - Key relationships remaining relatively steady over time when causal links were not impacted
  - Results similar to BMO Special Report on "Alberta's Long-range Outlook" (January 4, 2006) for general economy and public finance

Note: All financials presented in calendar years

Baseline – Revenue and Expense

2016

- 50% of provincial expenses are health care
- Projected annual deficit and impacts sustainability

2025

- Net financial assets positive for last year

Projected Fiscal Summary 2005 - 2025 — **Current Situation**

Provincial Income Statement

(Millions of Dollars)

	2005	2010	2015	2020	2025
Revenue					
Personal provincial tax	$ 5,062	$ 7,162	$ 10,737	$ 15,893	$ 23,163
Business prov Tax	$ 2,372	$ 2,633	$ 3,829	$ 5,537	$ 7,945
School property tax	$ 1,268	$ 1,417	$ 1,643	$ 1,905	$ 2,208
Other tax revenue	$ 1,920	$ 2,444	$ 3,347	$ 4,557	$ 6,156
Resource revenue	$ 12,307	$ 10,568	$ 9,075	$ 7,793	$ 6,692
Investment income provincial revenue	$ 1,404	$ 2,674	$ 3,068	$ 2,610	$ 897
Other Own Source Revenue	$ 4,114	$ 5,238	$ 7,171	$ 9,762	$ 13,187
Fed Government Transfers	$ 3,413	$ 4,409	$ 5,900	$ 7,895	$ 10,566
Provincial Revenue	$ 31,859	$ 36,547	$ 44,772	$ 55,952	$ 70,815
Expense					
AHW Expense	*$ 8,879*	*$ 13,733*	*$ 20,260*	*$ 29,489*	*$ 43,072*
Health others	*$ 771*	*$ 1,139*	*$ 1,750*	*$ 2,880*	*$ 5,080*
Total Provincial HC funding	$ 9,650	$ 14,872	$ 22,009	$ 32,369	$ 48,152
Education	$ 6,482	$ 7,922	$ 9,711	$ 11,828	$ 14,296
Social services	$ 2,530	$ 3,140	$ 3,848	$ 4,687	$ 5,665
Other expense	$ 6,298	$ 7,139	$ 8,751	$ 10,659	$ 12,883
Debt servicing cost	$ 317	$ 251	$ 251	$ 251	$ 251
Total Provincial Expense	$ 25,277	$ 33,323	$ 44,570	$ 59,794	$ 81,247
Assets					
Net Financial Assets beginning of year	$ 16,580	$ 39,056	$ 46,947	$ 37,770	$ 3,509
Capital Assets beginning of year	$ 10,640	$ 12,850	$ 15,224	$ 17,976	$ 21,167
Net Assets beginning of year	$ 27,220	$ 51,907	$ 62,171	$ 55,746	$ 24,676

Baseline – Health Care

- Increase in private sector costs largely associated with high prescription drug cost inflation

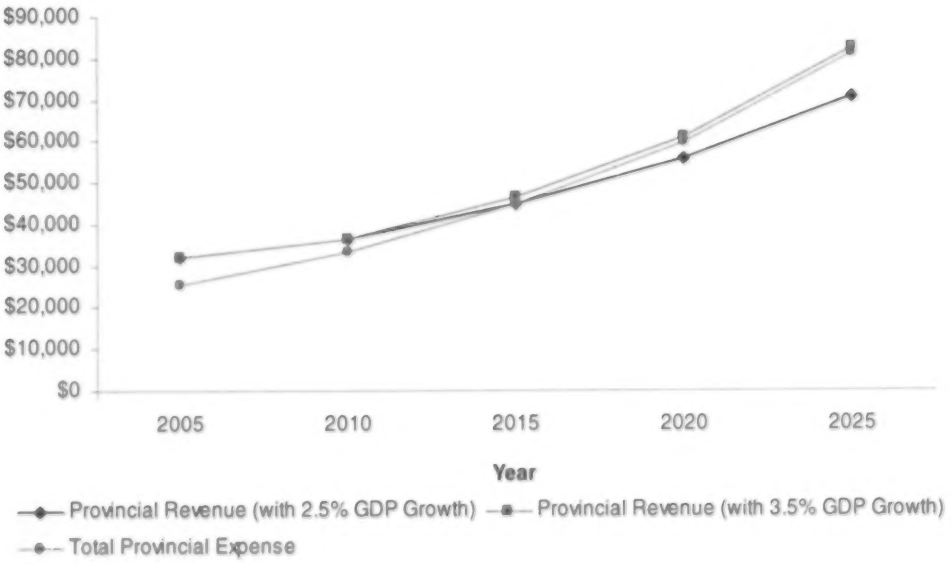
Projected Fiscal Summary 2005 - 2025 — **Current Situation**

Health Care Funding
(Millions of Dollars)

Funding	**2005**	**2010**	**2015**	**2020**	**2025**
Public					
Alberta Health and Wellness	$ 8,879	$ 13,733	$ 20,260	$ 29,489	$ 43,072
Other Departments	$ 771	$ 1,139	$ 1,750	$ 2,880	$ 5,080
Total HC Public Funding	$ 9,650	$ 14,872	$ 22,009	$ 32,369	$ 48,152
Private					
Insurer funding	$ 1,984	$ 4,077	$ 7,021	$ 10,591	$ 15,998
Out of pocket	$ 1,192	$ 2,277	$ 3,690	$ 5,462	$ 7,956
Total HC Private Funding	$ 3,176	$ 6,354	$ 10,711	$ 16,053	$ 23,953
Total Health Care Cost	$ 12,827	$ 21,226	$ 32,721	$ 48,422	$ 72,105
Use of Funds					
Non Emergency Cost	$ 4,714	$ 7,378	$ 11,454	$ 17,793	$ 27,726
Prescription Drugs Cost	$ 2,735	$ 5,698	$ 9,316	$ 13,697	$ 20,008
Supplementary Health Cost	$ 1,830	$ 3,621	$ 6,221	$ 9,402	$ 14,241
Continuing Care Cost	$ 1,263	$ 1,749	$ 2,269	$ 3,196	$ 4,674
Other HC	$ 1,900	$ 2,317	$ 2,929	$ 3,710	$ 4,708
Total HC Cost	$ 12,827	$ 21,226	$ 32,721	$ 48,422	$ 72,105
Total Reserves	$ -	$ -	$ -	$ -	$ -

GDP Growth Impact

- Baseline assumption is for GDP growth of 2.5% per year (conservative)
- If a 3.5% per year rate is assumed, overall provincial budget is sustainable through the projection period of 2025



Other Policy Implications

- Large scale pre-funding through increased premiums, shifts consumption to savings. How and where the reserve is invested can substantially impact overall economic performance
- Growing demand for Non-Emergency Health and Continuing Care will require a dramatic increase to the workforce unless productivity rates increase substantially
- Since the working population will grow at a slower rate, there is potential for shortages and increased wage pressures
- Specific design elements of insurance plans and policies can shift the cost burden between various stakeholders as desired by policy objectives

Final Comments

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- Insurance does not intrinsically make health care sustainable through cost reduction, but it supports:
  - Competition between health care providers on cost and quality
  - Pre-funding to reduce the 'peak' cost burden
  - Financial mechanisms to encourage healthier lifestyles and reduced health care usage
- Sustainability requires implementation of cost control measures, ideally done through increasing productivity
- Where an insurance plan transfers risk between the private and public sectors, careful consideration of impacts and potential unintended consequences is necessary
- Consumer choice increases with multiple insurers, each offering different coverage to meet different market needs